

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/083991 A2

- (51) International Patent Classification⁷: **G06F**
- (21) International Application Number:
PCT/IB2004/001302
- (22) International Filing Date: 18 March 2004 (18.03.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/455,615 18 March 2003 (18.03.2003) US
- (71) Applicant (for all designated States except US): **THOMSON LICENSING S.A.** [FR/FR]; 46, Quai A. Le Galo, F-92100 Boulogne-Billancourt (FR).

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **BICHOT, Guillaume** [FR/FR]; 26 rue de Mont Muran, F-35630 LA CHAPELLE CHAUSSEE (FR).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

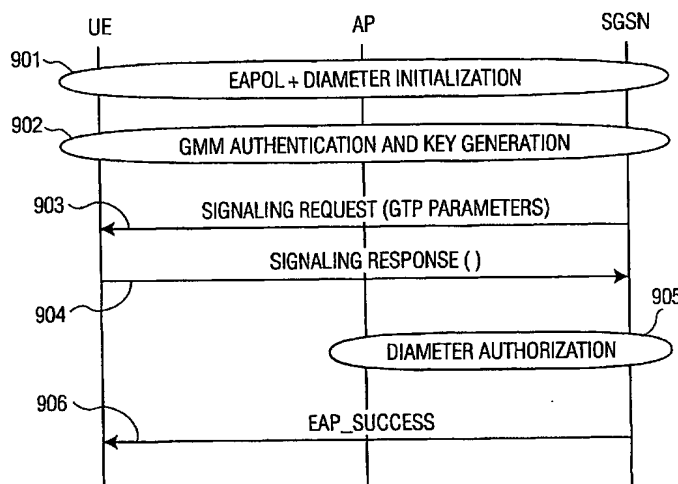
Published:

— without international search report and to be republished upon receipt of that report

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TIGHT COUPLING SIGNALING CONNECTION MANAGEMENT FOR COUPLING A WIRELESS NETWORK WITH A CELLULAR NETWORK



(57) Abstract: A method for communicating between a cellular system and a client terminal such as a mobile terminal by way of a standard wireless LAN and the Internet allows data communications to traverse the core of the cellular network, thereby allowing monitoring of the time and volume usage by the subscriber for billing purposes. The mobile terminal has a communication protocol for communicating with the wireless LAN, over which is a EAP/EAPOL protocol. A Radio Adaptation Layer (RAL) protocol overlies the EAP/EAPOL protocol. At the cellular system, a Serving GPRS Support Node establishes initial control contact with the mobile terminal by way of EAP/EAPOL. During authentication, the Support Node gives the mobile terminal parameters for an alternative tunnel connection. Once authorization is complete, the mobile terminal closes the EAP/EAPOL connection and opens a new connection tunnel to the Support Node using the parameters.